Determining the Speed of Magnetic Field Propagation in Vacuum

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The theory of aether managed to survive from the times of Maxwell and Faraday to our days. In 21st century the theory gets further active development in the works of Atsukovsky, Khaidarov, Rado. The existence of aether is supported by experiments of Miller, Marinov, Nikitin, Morin, Galaev. Galaev has explained the error in the setup of Michelson-Morley experiment and measured the viscosity of aether.

Within the aether theory many authors represent magnetic field as a stream of aether particles in circular motion. This statement can be experimentally verified. If this statement is true it is possible to measure the speed of the aether particles in vacuum.

It is widely assumed that speed of propagation of both electrical and magnetic field in vacuum is equal to speed of light. However this is not true for propagation in metals. For example, electrical signal propagates in copper with the speed of light. The magnetic field in copper propagates with the speed 100 m/s (experiment done in *STEORN* company, Ireland).

I suggest conducting the following experiment in open space (on a satellite or on the ISS) to measure speed of propagation of magnetic field in vacuum. After placing the magnet in open space it is necessary to measure the magnetic field around the magnet. If magnetic field is a material stream of moving aether then its shape around the magnet will be changed as it is shown in Fig.1. Knowing the velocity of the satellite it will be possible to calculate the speed of the aether stream.

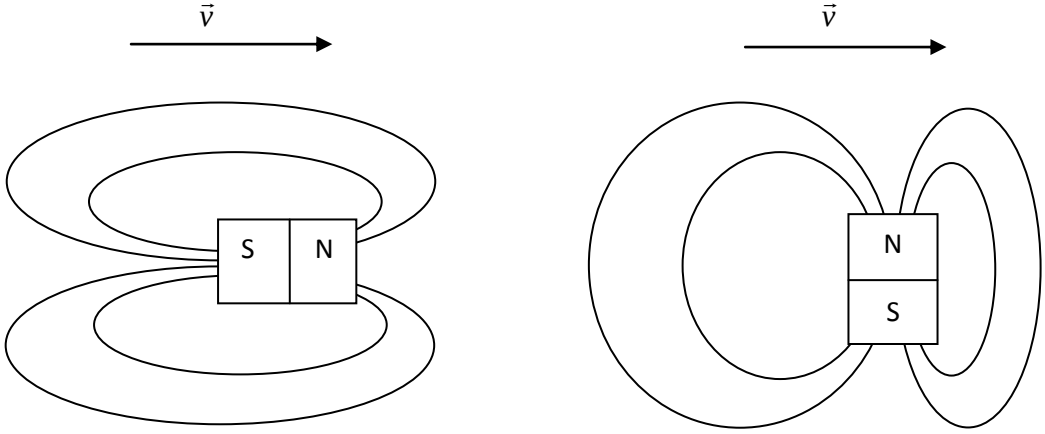

Fig.1 Prediction of change in the shape of the magnetic field depending on the magnet orientation relative to the motion of the satellite

The experiment has the following limitations. The magnet must not be shielded by any metal screen. It was determined by Miller and confirmed by Galaev that metals shield aether streams. Another prediction is that the permanent magnet will be gradually demagnetized by motion on open space with high velocity.

The negative outcome of the experiment will dismiss moving aether as a carrier of magnetic field. The positive outcome will have the following consequences:

- It will make possible to detect the motion of an inertial frame from itself and measure the velocity
- It will provide experimental background for the research of Earth magnetosphere
- It will enable better understanding of working conditions for electrical equipment in hypersonic aircrafts